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ABSTRACT

Provided are hypotheses and evaluation forms to evaluate vocational-occupational-technical education (V.O.T.E.) programs whose purposes include the mainstreaming of handicapped students. Materials are geared toward testing the following five hypotheses: most occupational administrators can cite specific examples of formal or informal evaluations they conduct on a regular basis; most of the evaluations are used in formal or informal decision making; most of these decisions refer to some sort of resource allocation; most of these administrators perceive typical formal evaluation studies to be either irrelevant or unusable in their decision making; and most of these administrators perceive typical informal evaluations cited by their peers to be relevant and usable. Also provided is a glossary of terms and a test to pick out the most effective plan for each of five criteria. (SBH)

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PROGRAMS
FOR THE HANDICAPPED
IN OCCUPATIONAL EDUCATION

(An Evaluation Guide for Program Managers and Program Evaluators)

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SUMMARY

This publication contains hypotheses and evaluation forms that can help evaluators while assisting occupational educatiors to evaluate vocational-occupational-technical education (VOTE) programs whose purposes include "mainstreaming handicapped students." The hypotheses are strictly for the technical staff of researchers and evaluators. The forms are for busy administrators and the general public. This distinction is important. Managers are not to be distracted from decisions by hypotheses.

The evaluation forms are ready to duplicate and use. Under no circumstances, are the hypotheses to be given to individuals who don't ask for them. Instead, simple explanations should be made available.

As a result of using these forms, program evaluators should reach certain conclusions about criteria of evaluation REPORTS:

1) Busy administrators want FACTS that are inexpensive to gather.
2) They want EXPLANATIONS that are directly linked to facts.
3) They want EVALUATIONS that pinpoint the trade-off benefits between GOALS (or plans) and COSTS (or budget) in terms of RESULTS (or performance).
4) They want proof of PROGRESS from the STARTING POINT (or base) to the CURRENT STATUS (or most recent data).
5) They want the evaluation to take care of technical terms (such as hypothesis) and to REPORT facts, explanations, benefits, and progress in clear and concise statements.

Any evaluator who doubts the above five criteria should check them out. One way to do so would be to use the five evaluation forms contained in this publication. When divergence is documented, the evaluator can better respond to the individual needs of the administrator requesting an evaluation.

Originally, these forms were developed for V.O.T.E. programs mainstreaming the handicapped. To appeal to a wider audience, the forms as herein reproduced have been generalized.

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INTRODUCTION

The process of evaluating vocational-occupational-technical education (V.O.T.E.) can be operationalized either formally or informally.

The plan presented herein can help administrators evaluate V.O.T.E. program whose purposes include "mainstreaming handicapped students."

The evaluation tests out five hunches or hypotheses:

1. Most occupational administrators can cite specific examples of formal or informal evaluations they conduct on a regular basis.

2. Most of the evaluations are used in formal or informal decision making.

3. Most of these decisions refer to some sort of resource allocation.

4. Most of these administrators perceive typical formal evaluation studies to be either irrelevant or unusable in their decision making process.

5. Most of these administrators perceive typical informal evaluations cited by their peers to be relevant and usable.

The above five hypotheses have been stated in simple non-technical language. The exact hypotheses actually tested are given in the appropriate technical terminology on the following pages.

GLOSSARY

V.O.T.E.	An acronyn, or abbreviation, for vocational-occupational-technical education.
Evaluate	Determine the value of; for example, to evaluate V.O.T.E. programs means to determine the value of vocational-occupational-technical education program by measuring, judging, examining, evolving, publicizing, or accounting.
Evaluation as measurement	The process of coming up with evidence that is countable, measurable, and relevant.
Evaluation as professional judgment	The process of using expert human judges to obtain a quick, qualified, and quantified assessment or ranking.
Evaluation as examination	The process of determining how well prespecified objectives were accomplished.
Evaluation as evolution	A management information system which examines intermediate results to determine how ongoing activities can be improved and made more effective.
Evaluation as public opinion	A systematic needs assessment and follow-up to determine how well ongoing activities are responding to the real needs and problems of a given community or target population.
Evaluation as accounting for tax dollars	A tracking system that makes sure the cost of any activity is reasonable in relation to the anticipated results.
Formal evaluation	Evaluation conducted with established design procedures, forms, formats, techniques, controls, measurements, guidelines, and criteria that can be used elsewhere for moderately different purposes.
Informal evaluation	Evaluation conducted without an established design and without plans for replication elsewhere.
Hypothesis	An educated guess, hunch, or prediction.
Testable hypothesis	A guess, hunch, or prediction stated in such a way that evidence can be gathered to document a YES or NO answer.

Testable Hypothesis No. 1

Hypothesis

Most occupational administrators can cite specific examples of formal or informal evaluations they conduct on a regular basis.

Testable Hypothesis

In a sample of 20 occupational administrators, more than 10 can cite specific examples of formal or informal evaluations they conduct on a regular basis.

INSIGHT

When an occupational educator starts mainstreaming handicapped high school students into regular shops, laboratories, work stations, and classroom, this process usually begins informally. Those handicapped individuals judged informally most likely to succeed are among the first applicants. Few formal labels are used. When these moderately handicapped students succeed, severely handicapped students are informally taken into the program. In the meantime, teachers and staff have had a chance to "tool up" informally. Students learn informally one-by-one how to live with, work with, and mature with peers exhibiting the broad spectrum of human potentials and possibilities.

Such an informal introduction requires an informal evaluation. The program needs time to grow before being measured prematurely. An evaluation shapes any program, some way or another. An informal evaluation permits all concerned to put away preconceived fears and concerns about programs which "mainstream" handicapped and non-handicapped students in the same setting. Such a process makes all of us more humane.

Test Questions (Hypothesis No. 1)

Directions: Answer the multiple choice questions by checking the box in front of the answer you select.

Answer the fill in requests that apply to you by writing your reply in the space provided.

1. Are you an occupational administrator?

☐ YES ☐ NO

2. What is your title as an occupational administrator?

_____

3. Do you use formal evaluations as an occupational administrator?

☐ YES ☐ NO

4. Cite one formal evaluation you have used as an occupational educator.

_____

_____

_____

5. Do you use informal evaluations as an occupational educator?

☐ YES ☐ NO

6. Cite one informal evaluation you have used as an occupational educator.

_____

_____

_____

7. Are most of the evaluations you use on a regular basis as an occupational educator FORMAL or INFORMAL?

☐ FORMAL ☐ INFORMAL

8. Please explain your answer to question 7.

_____

_____

9. Do you agree with the following statement, "Formal evaluations are assessments conducted with established procedures, forms, controls, measurements, guidelines, and criteria that are scientifically acceptable."

☐ YES ☐ NO

10. Do you agree with the following statement, "Most of the evaluations I conduct on a regular basis as an occupational administrator are formal evaluations."

☐ YES ☐ NO

Testable Hypothesis No. 2

Hypothesis

Most of the evaluations are used in formal or informal decision making.

Testable Hypothesis

In a minimum sample of 10 evaluations identified in hypothesis no. 1, more than 50% are used in either formal or informal decision making.

INSIGHT

Decision-making is more important than statistical analysis in many cases. For example, the following paragraph contains very little statistical back-up. However, many managers have used it for curriculum adaptation to help both handicapped and non-handicapped job applicants. Sometimes, the question to ask is THE OPINION WHY rather than merely the STATISTICAL HOW MANY. Here's an example:

At least two out of three handicapped new employees who lose their jobs had adequate aptitude and ability. They seem to have lost their jobs because they couldn't get along with others on the job. They had conflicts with peers and supervisors.

Decision-makers used this informal data to create a curriculum that zeroed in on:

a) personality development
   (improve your assets)
b) socialization
   (minimize your deficits by maximizing the assets of others)
c) behavioral modification (you can CHANGE YOURSELF).

P.S. The curriculum on job skills already existed. All it needed was UPDATING, not creation. The new curriculum, on the contrary, had to be fieldtested and revised several times.

Test Questions (Hypothesis No. 2)

Directions: Answer the multiple choice questions by checking the box in front of the answer you select.

Answer the fill in requests that apply to you by writing your reply in the space provided.

1. Does your job as an occupational educator involve you in decision making?

☐ YES ☐ NO

2. What kinds of decisions do you make as an occupational educator?

_____

3. Do you make formal decisions as an occupational educator?

☐ YES ☐ NO

4. Cite one formal decision you have made as an occupational educator.

_____

_____

_____

5. Do you make informal decisions as an occupational educator?

☐ YES ☐ NO

6. Cite one informal decision you have made as an occupational educator.

_____

_____

_____

7. Are most of the decisions you make on a regular basis as an occupational educator FORMAL or INFORMAL?

☐ FORMAL ☐ INFORMAL

8. Please explain your answer to question 7.

_____

_____

9. Do you agree with the following statement, "A decision is only as good as the information or evaluation upon which it is based."

☐ YES ☐ NO

10. Do you agree with the following statement, "Most of the evaluations I make are used in formal or informal decision making."

☐ YES ☐ NO

Testable Hypothesis No. 3

Hypothesis

Most of these decisions refer to some sort of resource allocation.

Testable Hypothesis

In a minimum of 10 decisions identified in hypothesis no. 2, more than 50% are used to allocate resources such as data, people, or things.

INSIGHT

Resource allocation directly relates to program objectives. Each person is different. Since each program has a different mix of individual needs, the program resource allocations will vary. Evaluations must reflect this. There must be "enough room" for individual differences. Here's one example:

Before the mainstreaming experiment, there was only one goal: (1) The graduate finds competitive employment.

After mainstreaming, two more goals emerged. The length of time needed to complete the program became expandable. The product of the program included completers, who had learned enough to get a good job but not enough to graduate. The new goals are: (2) The graduate or completer finds placement in a community facility, such as a sheltered workshop; and (3) The graduate or completer returns home as an active and participating member of the family and community. The emphasis is on skill acquisition rather than on uniform completion time.

Informal evaluation can give some idea of the effectiveness of "things hard to evaluate" such as:

(a) Growth in responsibility
(b) Integration into the regular schedule
(c) Practical academic training
(d) Activities of daily living
(e) Vocational development
(f) Maturity as a young adult

Test Questions (Hypothesis No. 3)

Directions: Answer the multiple choice questions by checking the box in front of the answer you select.

Answer the fill in requests that apply to you by writing your reply in the space provided.

1. Do you transmit DATA to your staff on a regular basis?

☐ YES ☐ NO

2. How do you decide whether or not to transmit data to your staff?

_____

_____

_____

3. Do you acquaint your staff with significant PEOPLE on a regular basis?

☐ YES ☐ MP

4. How do you decide whether or not to acquaint your staff with significant people?

_____

_____

_____

5. Do you make available a variety of new THINGS to your staff on a regular basis?

☐ YES ☐ NO

6. How do you decide whether or not to acquaint your staff with new things?

_____

_____

_____

7. With which of the following areas are most of your decisions concerned?

☐ DATA ☐ PEOPLE ☐ THINGS ☐ OTHER; specify_____

Testable Hypothesis No. 4

Hypothesis

Most of these administrators perceive typical formal evaluation studies to be either irrelevant or unusable in their decision making process.

Testable Hypothesis

In a sample of 20 occupational administrators, more than 10 can cite specific examples of formal evaluation studies that they perceive as either irrelevant or unusable in their decision making process.

Test Questions (Hypothesis No. 4)

Directions: Answer the multiple choice questions by checking the box in front of the answer you select.

Answer the fill in requests that apply to you by writing your reply in the space provided.

1. Do you recognize the difference between FORMAL and INFORMAL evaluation studies?

   ☐ YES ☐ NO

2. In a few words, what is the difference?

   _____

   _____

   _____

3. Which type of evaluation do you PREFER?

   ☐ FORMAL ☐ INFORMAL

4. Why? _____

5. Which type of evaluation do you find most RELEVANT, PERTINENT, and APPLICABLE to your decision making process as an occupational administrator?

   ☐ FORMAL ☐ INFORMAL

6. Why? _____

7. Which type of evaluation do you find most USABLE, HELPFUL, and USEFUL in your decision making process as an occupational administrator?

   ☐ FORMAL ☐ INFORMAL

8. Why? _____

9. Which type of evaluation do you USE most often?

   ☐ FORMAL ☐ INFORMAL

10. Why? _____

Testable Hypothesis No. 5

Hypothesis

Most of these administrators perceive typical informal evaluations cited by their peers to be relevant and usable.

Testable Hypothesis

In a sample of 20 occupational educators, more than 10 report informal evaluation to be relevant and usable.

Test Questions (Hypothesis No. 5)

Directions: Answer the multiple choice questions by checking the box in front of the answer you select.

Answer the fill in request that apply to you by writing your reply in the space provided.

1. Have you ever read or used an informal evaluation?

☐ YES ☐ NO

2. In a few words, what was it all about?

_____

_____

_____

3. Have any of your peers ever cited or call an informal evaluation to your attention?

☐ YES ☐ NO

4. How did it happen?

_____

5. How do you perceive most informal evaluation in general?

☐ RELEVANT ☐ IRRELEVANT

6. Why? _____

7. How do you perceive most informal evaluatin as far as use is concerned?

☐ USABLE ☐ UNUSABLE

8. Why? _____

CONCLUSION

Test out the following examples of plans for each criterion. Pick the one that seems most effective. Check your choice with the answer key. The answer key is found after the last criterion where it is printed upside down.

Criterion 1: FACTS must be inexpensive to gather.

Plan A. We will track down every graduate from this school, no matter how much it costs.

Plan B. We will organize existing school records and sample 10% of those graduates whom we identify as "findable."

Criterion 2: EXPLANATIONS must be linked to facts.

Plan C. We will tie all explanations to the 23 theoretical levels of employable personality intervening variables.

Plan D. We will place our explanations in parallel columns alongside the data.

Criterion 3: BENEFITS must accompany costs.

Plan E. We will stress the intangible benefits of this study to show what MIGHT result ten years from now.

Plan F. We will identify a COST for each BENEFIT whose existence we can document.

Criterion 4: PROGRESS must be documented.

Plan G. We will stress a long list of things that still have to be done to achieve a perfect program.

Plan H. We will document the growth between the pretest (at the beginning of the program) and the posttest (our most recent data).

Criterion 5: EVALUATION must be readable.

Plan I. We will dwell upon null hypotheses, Type I and Type II errors, exact chi-square values, t-tests, standard deviations, and the unexplained variances including co-variance.

Plan J. We will provide a two page non-technical evaluation summary. Technical reports will be available, as required and as requested.

ANSWERS: 1(B), 2(D), 3(F), 4(H), and 5(J).